



PATENT
Customer No. 22,852
Attorney Docket No. 06478.1495-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Peter Hermentin et al.)	Group Art Unit: 1641
)	
Application No.: 10/682,199)	Examiner: David J. Venci
)	
Filed: October 10, 2003)	
)	Confirmation No.: 1253
For: METHOD FOR DETERMINING)	
MULTIMERS OF PLASMA)	
PROTEINS)	

Attention: Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER BOARD RULE § 41.37

In support of the Notice of Appeal filed May 25, 2007, and further to Board Rule 41.37, Appellants present this Brief. This Appeal responds to the November 29, 2006, final rejection of claims 16-25, 27-28, 30-31, 33, and 35.

Appellants also enclose herewith a check for the fee of \$500.00 required under 37 C.F.R. § 1.17(c). This Appeal Brief is also filed with a Petition for a One Month Extension of Time until August 25, 2007, and the \$120.00 extension of time fee. If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916.

08/13/2007 JADD01 00000006 10682199
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Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Real Party In Interest

CSL Behring GmbH is the real party in interest. CSL Behring GmbH is formerly known as ZLB Behring GmbH, which, in turn, is formerly known as Aventis Behring GmbH. The assignment to Aventis Behring GmbH was recorded on September 16, 2001, at Reel 011624, Frame 0455. The change of name to ZLB Behring GmbH was recorded at Reel 015338, Frame 0536, on November 4, 2004. The further change of name of ZLB Behring GmbH to CSL Behring GmbH is being prepared and will be submitted to the Office shortly.

Related Appeals and Interferences

There are currently no other appeals or interferences, of which Appellants, Appellants' legal representatives, or Assignee are aware, that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

Status Of Claims

Claims 1-15 were originally filed in this application. Those claims were canceled and replaced with claims 16-34 in a preliminary amendment submitted with the application on October 10, 2003. Claim 35 was later added to the claims on July 25, 2005. Further amendments were made to claim 16 in subsequent prosecution, while claims 26, 29, 32, and 34 were canceled without prejudice or disclaimer.

Accordingly, claims 16-25, 27-28, 30-31, 33, and 35 are presently pending. All of the claims have been finally rejected. No claims are withdrawn from examination.

A copy of the presently pending claims is provided in the Appendix.

Status Of Amendments

All previously submitted amendments have been entered by the Examiner. (See the Advisory Action of March 21, 2007.)

Summary Of Claimed Subject Matter

Independent claim 16 recites a method for the determination of multimers of multimer-forming proteins by gel electrophoresis, comprising:

- fractionating a sample containing von Willebrand factor or fibrinogen into multimer bands by submarine electrophoresis in agarose gel, wherein the agarose gel is continuous, homogeneous and free of lumps,
- visualizing multimer bands by a dye in the gel,
- and optionally quantifying the dyed multimer bands.

Claim 16 is supported throughout the application, for example, at page 6, lines 4-26, and in the detailed von Willebrand factor and fibrinogen protocols that follow at pages 6-16, and in Examples 1-3 at pages 16 and 17.)

Claim 17 further recites that the dye is a blue stain. Claim 17 is supported, for example, at page 6, lines 14-15, page 6, lines 36-38, page 8, lines 6-9, page 11, lines 32-35, and page 13, lines 1-5. Claims 27, 28, 31, and 33, each depend from claim 17. Claim 27 recites that the blue stain is Coomassie blue. That claim is supported in the application as for claim 17. Claim 28 recites that the gel is attached to a backing sheet, while claim 31 recites that the multimer bands are quantitated after visualization with the blue dye. A backing sheet is described, for instance, at page 6, line 36, to page 7, line 4, and at page 11, lines 32-38, and in original claim 9. Quantitation, such as by densitometry, is described, for instance, at page 11, lines 4-22, page 16, lines 5-9, in

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Examples 1-3 at page 16, lines 29-30, page 17, lines 6-7, and page 17, lines 17-29, and in original claim 11. Claim 33 depends from claim 28 and recites that the gel is laminated after visualization. Lamination is described, for example, at page 8, lines 27-29, and page 13, lines 22-24, and in original claim 14.

Claims 18 and 19 depend from claim 16 and recite that the sample contains von Willebrand factor or fibrinogen, respectively. Those claims are supported as for claim 16, for example in the successive descriptions at pages 6-11 and 11-16, providing procedures with each of those proteins.

Claims 20-23 depend from claim 16 and recite particular concentration ranges of agarose in the gel, respectively from 1.6% to 3% by weight, from 1.8% to 2.4% by weight, from 0.7% to 1.8% by weight, and from 0.8% to 1.2% by weight. Those percentages are supported, for instance, at page 6, lines 31-33, page 7, lines 8-9, page 11, lines 27-29, and page 12, lines 3-4, and in original claims 4 and 5.

Claims 24-25 depend from claim 16 and recite that the gel electrophoresis procedure is carried out at particular temperature ranges, respectively between 6° C and 14° C, or between 8° C and 12° C. Those temperature ranges are recited, for example, at page 6, line 11, and in original claim 6.

Claim 30 depends from claim 16 and recites that the multimer bands are quantified by densitometry. Quantitation, such as by densitometry, is described, for instance, at page 11, lines 4-22, page 16, lines 5-9, in Examples 1-3 at page 16, lines 29-30, page 17, lines 6-7, and page 17, lines 17-29, and in original claim 11.

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Claim 35 also depends from claim 16 and recites that the gel is fixed and dried before visualizing the multimer bands. That claim is supported, for example, at page 8, lines 6-29, and page 13, lines 12-24.

Finally, the pending claims do not contain any means plus function or step plus function limitations according to 35 U.S.C. § 112, sixth paragraph.

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Grounds of Rejection

A. Claims 16-24, 27-28, 30-31, 33 and 35 stand finally rejected as allegedly obvious under 35 U.S.C. § 103(a) over Shainoff (*Adv. Electrophoresis* 6: 65-176 (1993)) in view of Bhat & Nagineni (*Anal. Biochem.* 170: 105 et seq. (1988)).

B. Claim 25 stands finally rejected as allegedly obvious under 35 U.S.C. § 103(a) over Shainoff in view of Bhat & Nagineni, and further in view of Perrella & Denisov (*Meth. Enz.* 259: 468 et seq. (1995)).

For the purposes of rejection A, all of claims 16-24, 27-28, 30-31, 33 and 35 stand or fall together.

Argument

I. Introduction

Obviousness is determined by performing the so-called Graham factual inquiries. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007). Those inquiries are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary considerations.

(Memorandum of the U.S. Patent and Trademark Office to Technology Center Directors, May 3, 2007, at page 1.) To avoid hindsight, the obviousness analysis is to be conducted from the point of view of one of ordinary skill in the art, knowing nothing of the claimed invention, at the time the application was filed.

The Supreme Court in *KSR v. Teleflex* emphasized the importance of considering secondary considerations such as unexpected results, given that most, if not all, inventions are combinations of what was, in some sense, already known. *See KSR*, 127 S.Ct. at 1741. Thus, elements that “work[] together in an unexpected and fruitful manner” may support a conclusion of nonobviousness. *Id.*

Moreover, the Supreme Court in *KSR* pointed out that when combining elements from several different prior art documents, it is important to identify “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, No. 06-1329, Slip. Op. at 10 (Fed. Cir. July 9, 2007) (citing *KSR*

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

v. Teleflex, 127 S.Ct. at 1731). Indeed, the Office's policies set forth in the Memorandum of May 3, 2007, advise Examiners that "in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed." (*Id.*, at page 2.) Evaluating motivation to combine documents and reasonable expectation of success can be helpful in determining if there is sufficient reason to combine prior art elements. (*Id.*)

The Examiner bears the burden to set forth such reasoning according to the substantial evidence standards set forth by the Federal Circuit. See *In re Zurko*, 258 F.3d 1379 (Fed. Cir. 2001); *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002). An Examiner cannot rely on "mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning" supporting a conclusion of obviousness. *KSR v. Teleflex*, 127 S.Ct. at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); and see *Lee*, 277 F.3d at 1345.

II. Rejection of Claims 16-24, 27-28, 30-31, 33 and 35 under 35 U.S.C. § 103(a) over Shainoff in view of Bhat & Nagineni

The Examiner rejects claims 16-24, 27-28, 30-31, 33 and 35, contending that they are obvious under 35 U.S.C. § 103(a) over Shainoff (*Adv. Electrophoresis* 6: 65-176 (1993)) in view of Bhat & Nagineni (*Anal. Biochem.* 105: (1988)). (Office Action of November 29, 2006, at pages 3-4; Advisory Action of March 21, 2007.)

The Examiner cites Shainoff for all of the elements of claim 16 except for submarine gel electrophoresis. The Examiner cites Bhat & Nagineni for submarine gel electrophoresis and contends that "it would have been obvious to replace the

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

electrophoretic protocol of Shainoff with a 'submarine' method because Bhat & Nagineni discovered that the 'submarine' method allows for stacking of multiple gels allowing for multiple simultaneous runs" referring to the abstract of Bhat & Nagineni.

The Examiner is reading far too much into each of those publications.

In determining the content of the prior art and comparing that to the claims at issue according to *Graham*, both the prior art and the claims must be considered as a whole, and hindsight reasoning must be strictly avoided. M.P.E.P. § 2141.02. Here, the Examiner has failed to consider the teachings of each of those documents as a whole, in light of the overall prior art of record.

Considering both documents as a whole, it is evident that there are greater differences between the teachings of those cited documents and the instant claim 16 than the Examiner gives credit for. Hence, it appears to Appellants that the two documents have been combined by impermissible hindsight reasoning. Accordingly, Appellants submit that this is not a *prima facie* case of obviousness.

Shainoff

Shainoff is entitled "Electrophoresis and direct immunoprobings on glyoxyl agarose and polyacrylamide composites." Shainoff is a review article that describes a variety of procedures that use glyoxyl agarose and polyacrylamide composites. The instant claim 16 does not use such electrophoresis media. Moreover, Shainoff also does not present just one method of using those media, but presents many different kinds of electrophoresis procedures. Those procedures include continuous gels, discontinuous gels, gradient gels, two-dimensional gels, and preparative gels, with many different kinds of staining procedures including dyes, silver and gold stains,

immunochemical stains, peroxidase, and fluorescent stains. (See Shainoff table of contents, at pages 61-64.)

Shainoff does include one figure showing an electrophoresis of fibrinogen. (Figure 4 at page 79.) But the fibrinogen is run on glyoxyl agarose, not the instant claimed agarose. Moreover, as discussed in more detail below, the fibrinogen in that figure is successfully visualized by peroxidase immunostaining. (Figure 4 at page 79, lanes labeled F, EC, M, and SC.) One of ordinary skill would have recognized that dyes are much less sensitive than other staining methods, such as immunostaining, because they cannot pick out faint quantities of materials in a gel as well as other methods such as the immunochemical stains, peroxidase, and fluorescent stains also taught in Shainoff.

Thus, if Shainoff had pointed one of ordinary skill in the art to any particular method of visualizing fibrinogen multimers, at best it would have been to a glyoxyl agarose with a peroxidase immunostaining protocol, which is not what Appellants claim.

Nonetheless, the Examiner contends that Shainoff suggests the dye staining, agarose, and the continuous gel, as specifically recited in the method of instant claim 16. (Shainoff at Table 1 and at page 98, section 2.7 entitled "general protein staining.") It does not. Instead, Shainoff is a general review article teaching a myriad of different types of electrophoresis procedures. Shainoff's teachings of agarose, dyes, and continuous gels are not linked together in any way as to point one of ordinary skill toward the specific protocol of claim 16. Thus, Appellants can only conclude from reviewing Shainoff as a whole that the Examiner has used hindsight to pick and choose disparate and unrelated elements of Shainoff to support this rejection rather than

consider Shainoff's teachings in full and in light of the general prior art on visualization of fibrinogen and von Willebrand multimers.

First, the Examiner points to the "general protein staining" section of Shainoff to assert that Shainoff teaches using dyes in the particular way claimed in claim 16. (Shainoff at page 98.) Instead, Shainoff merely illustrates that dyes were among the visualizing agents known to those of ordinary skill in the art.

For example, the section on general protein staining with Coomassie blue dye is generic. It does not refer to any particular type of electrophoresis protocol to visualize any specific type of protein or other molecule. (*Id.*) That section is also immediately followed by discussions of several non-dye stains such as silver and gold, and, later in the article, by sections describing immunostaining, substrate staining, enzymatic labeling, and fluorescence, all of which were known in the art to be much more sensitive than dyes. (Shainoff at pages 98-99, 145-155, and 158-162.) Thus, Shainoff as a whole does not suggest that one of ordinary skill in the art use a dye in the specific method of claim 16. At best, it merely points out that a variety of different staining procedures were known in the art at the relevant time, including dyes and several other choices.

Moreover, it was commonly known in the art that dyes were not always successful in visualizing certain protein bands. Dyes were commonly known to be the least sensitive method of staining, and to be unable to reveal protein species present in low concentration. Indeed, the figure depicting fibrinogen in Shainoff shows that immunochemical staining with peroxidase on the glyoxyl agarose gel gave specific, intense staining that was not achievable by a dye. (Shainoff at page 79, Figure 4,

compare the intense immunostaining bands marked F, EC, M, and SC, with the faint dye bands to the left of the figure.)

One of ordinary skill in the art would also have been aware of the procedures described at pages 2-5 of the instant specification, illustrating the then-used methods for visualizing fibrinogen multimers and von Willebrand multimers. Procedures such as those of Connaghan et al. (page 2, line 6) and Raines et al., summarized in WO 01/12244, do not use dye stains, but instead use radioactivity and immunoblotting, which are known to be more sensitive and better able to detect faint quantities of material. (Connaghan et al. (made of record in the Information Disclosure Statement filed October 10,2003), e.g., at Figures 1-2; WO 01/12244 (made of record in the Information Disclosure Statement filed October 10,2003), e.g., at pages 5-6 and Figure 1.) In fact, Figure 1 of Connaghan et al. demonstrates that a Coomassie blue dye stain in those authors' hands was unable to completely resolve multimer bands (lanes marked "CB") while radioactive labels revealed numerous protein bands (lanes marked "AR"). Moreover, the second document the Examiner cites, Bhat & Nagineni, which in any event does not pertain to visualizing either fibrinogen or von Willebrand factor, discusses polyacrylamide gels with radioactive labeling. Thus, Shainoff, in the context of the knowledge of one of ordinary skill in the art at the relevant time, does not suggest using dyes as part of the specific procedure of claim 16, any more than any other type of known and more sensitive labeling method.

Second, as noted above, the Examiner contends that Shainoff teaches agarose as an electrophoresis medium. It is true that Shainoff mentions that agarose is a known electrophoresis medium. But given that the purpose of Shainoff's article was to explain

how to use a different type of medium, glyoxyl agarose or a composite of glyoxyl agarose and polyacrylamide (see the Title of Shainoff), the mention of agarose, at best, merely shows that agarose was known in the general electrophoresis art.

Third, the Examiner contends that Shainoff suggests a continuous, homogeneous gel as opposed to a non-continuous gel (such as a system involving a so-called "stacking gel" and "separating gel" or other multi-part gel systems). (Table 1 of Shainoff at page 75.) While Shainoff does mention a continuous gel in that table and does present such a gel in Figure 4 at page 79, Shainoff also describes how to make discontinuous gels at pages 82-85. Moreover, as the instant application describes, the general prior art as to visualizing fibrinogen and von Willebrand factor at the relevant time period taught the successful use of discontinuous gels. (Specification at pages 2-6.) Moreover, it was common knowledge in the art that discontinuous protein gels generally provide cleaner results and sharper band images. Given that discontinuous gels were also generally used and successful in measuring protein multimers, and Shainoff teaches both types of gels, Shainoff provides no reason to switch. (Specification at pages 2-6.) In fact, Shainoff also teaches third type of gel – a gradient gel. (Shainoff at page 115.)

A review of Shainoff in full thus makes it evident that the Examiner has merely picked and chosen disparate sections of the article to support this rejection without considering the article as a whole in the context of the overall prior art. Instead, when placing the teachings of Shainoff in their proper context, it is evident that there are large differences between what Shainoff teaches and the instant, claimed invention.

Shainoff Combined with Bhat & Nagineni

The Examiner relies on Bhat & Nagineni merely for a teaching of submarine electrophoresis. (Office Action at page 3.) As such, Bhat & Nagineni does not close the gaps left by Shainoff. Indeed, Bhat & Nagineni has no other connection to the instant, claimed methodology. Instead, the article is directed to an entirely different electrophoresis procedure than the one claimed here, having different technical issues and concerns. Specifically, the article discusses two-dimensional protein electrophoresis, which is a method of separating a large mixture of different kinds of unrelated proteins from each other based on changes in the pH of the buffer. Moreover, Bhat & Nagineni use polyacrylamide, not agarose, and visualize proteins with radiolabels, which is a more precise technique than the dye staining method claimed herein.

Accordingly, Shainoff and Bhat & Nagineni taken in combination do not provide sufficient reason for one of ordinary skill in the art knowing nothing of this invention to decide to visualize fibrinogen or von Willebrand Factor multimers on agarose in a submarine gel system with a continuous gel and simple dye staining, as claimed here. Instead, that combination, in light of the general prior art, at best, would suggest the use of a different electrophoresis medium than the one claimed here, such as glyoxyl agarose or polyacrylamide, would suggest a more precise staining method than the one claimed here, such as radiolabelling or immunostaining, and would not necessarily suggest using a continuous gel system. Thus, the differences between the instant claim 16 and the Shainoff and Bhat & Nagineni articles taken together and in the context of the prior art as a whole are just too large to warrant a *prima facie* case of obviousness.

Accordingly, Appellants respectfully request the Board to overturn the rejection of claims 16-24, 27-28, 30-31, 33 and 35.

III. Rejection of Claim 25 under 35 U.S.C. § 103(a) over Shainoff in view of Bhat & Nagineni, and further in view of Perrella & Denisov

The Examiner rejects claim 25 as allegedly obvious over Shainoff in view of Bhat & Nagineni, and further in view of Perrella & Denisov. (Office Action at page 4.)

All of the remarks in Section II regarding Shainoff and Bhat & Nagineni also pertain to this rejection. For brevity, those remarks will not be repeated here. Perrella & Denisov is merely cited for the teaching of the claimed temperature range. (Office Action at page 4.) But Perrella & Denisov does not relate to fibrinogen or von Willebrand factor. Instead, that article discusses the effect of temperature on hemoglobin protein.

The Examiner's reason for suggesting that Perrella & Denisov, in addition to the other two articles, makes claim 25 obvious is that "Perrella & Denisov teach that the use of temperature to modify electrophoresis allows for probing of 'intermediate stages of ligation' and 'quarternary structural changes'," citing the first paragraph of the article. (*Id.*) Appellants fail to see how that paragraph of Perrella & Denisov is in any way relevant to the instant claim 25. Nor does the article appear to suggest the precise temperature range of claim 25.

The first paragraph of the article, indeed the entire article, discusses cooperative interactions between the subunits of the allosteric enzyme hemoglobin and how those interactions affect substrate binding to the enzyme. The article goes on to discuss electrophoresis of hemoglobin in copolymers of acrylamide and methyl or ethyl acrylate

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

at temperatures below the freezing point of water using cryosolvents. The “intermediate stages of ligation” and “quaternary structural changes” relate specifically to properties of hemoglobin such as its allosteric substrate binding mechanism. For example, hemoglobin is a tetrameric protein. Hence, the “quaternary structural changes” refer to how each of the four subunits in a hemoglobin tetramer change structure once substrate begins to bind the enzyme. This is a process that is unique to hemoglobin, as one of ordinary skill would have recognized. In consequence, it entirely escapes Appellants how this article could relate to electrophoresis of two unrelated proteins with completely different structures and functions, and under specific temperature conditions of between 8° C and 12° C not apparently discussed in the article.

Consequently, Appellants submit that this rejection is not a *prima facie* case of obviousness both for the reasons explained in Section II above and for the additional reasons presented here. For that reason, Appellants request the Board to overturn the rejection.

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Conclusion


For all of the reasons given above, pending claims 16-25, 27-28, 30-31, 33, and 35 are allowable and Appellants request reversal of the Examiner's rejections.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not found to be enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: August 10, 2007

By: 
Elizabeth A. Doherty
Reg. No. 50,894

Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

The following is a listing of the claims and their status.

1-15. (Cancelled)

16. (Previously Presented) A method for the determination of multimers of multimer-forming proteins by gel electrophoresis, comprising
fractionating a sample containing von Willebrand factor or fibrinogen into multimer bands by submarine electrophoresis in agarose gel, wherein the agarose gel is continuous, homogeneous and free of lumps,
visualizing multimer bands by a dye in the gel,
and optionally quantifying the dyed multimer bands.

17. (Previously Presented) The method as claimed in claim 16, wherein the dye is a blue stain.

18. (Previously Presented) The method as claimed in claim 16, wherein the multimer-forming protein is fibrinogen.

19. (Previously Presented) The method as claimed in claim 16, wherein the multimer-forming protein is von Willebrand factor.

20. (Previously Presented) The method as claimed in claim 18, wherein the agarose gel comprises an agarose concentration of from 1.6% to 3% by weight.

21. (Previously Presented) The method as claimed in claim 20, wherein the agarose gel comprises an agarose concentration of from 1.8% to 2.4% by weight.

Application No.: 10/682,199
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22. (Previously Presented) The method as claimed in claim 19, wherein the agarose gel comprises an agarose concentration of from 0.7% to 1.8% by weight.

23. (Previously Presented) The method as claimed in claim 22, wherein the agarose gel comprises an agarose concentration of from 0.8% to 1.2% by weight.

24. (Previously Presented) The method as claimed in claim 16, wherein the gel electrophoresis is carried out at temperatures between 6° C and 14° C.

25. (Previously Presented) The method as claimed in claim 24, wherein the gel electrophoresis is carried out at temperatures between 8° C and 12° C.

26. (Canceled)

27. (Previously Presented) The method as claimed in claim 17, wherein Coomassie blue dye is employed for blue staining of the multimer bands in the gel.

28. (Previously Presented) The method as claimed in claim 17, wherein the agarose gel is attached to a backing sheet.

29. (Canceled)

30. (Previously Presented) The method as claimed in claim 16, wherein the multimer bands are quantified by densitometry.

31. (Previously Presented) The method as claimed in claim 17, wherein the multimer bands are quantified after visualization with the blue stain.

32. (Canceled)

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

33. (Previously Presented) The method as claimed in claim 28, wherein the gel is preserved by lamination after the visualization.

34. (Canceled)

35. (Previously Presented) The method as claimed in claim 16, wherein the gel is fixed and dried before visualizing the multimer bands.

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

No evidence is submitted herein pursuant to §§ 1.130-1.132.

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

No related proceedings are cited herein.



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Commissioner for Patents
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Alexandria, VA 22313-1450

Sir:

TRANSMITTAL OF APPEAL BRIEF (37 C.F.R. 41.37)

Transmitted herewith is an Appeal Brief with respect to the Notice of Appeal filed
on May 25, 2007.

This application is on behalf of

☐ Small Entity ☒ Large Entity

Pursuant to 37 C.F.R. 41.20(b)(2), the fee for filing the Appeal Brief is:

☒ \$500.00 (Large Entity)

TOTAL FEE DUE:

Appeal Brief Fee	\$500.00
Extension Fee (if any)	\$120.00
Total Fee Due	\$620.00

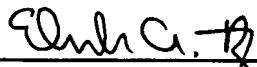
☒ Enclosed is a check for \$620.00 to cover the above fees.

Application No.: 10/682,199
Attorney Docket No.: 06478.1495-00

PETITION FOR EXTENSION. If any extension of time is necessary for the filing of this Appeal Brief, and such extension has not otherwise been requested, such an extension is hereby requested, and the Commissioner is authorized to charge necessary fees for such an extension to our Deposit Account No. 06-0916. A duplicate copy of this transmittal form is provided for charging the deposit account, should that be necessary.

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: August 10, 2007

By: 
Elizabeth A. Doherty
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